LISTING OF THE CLAIMS

1.   (Previously presented) A multimodal polymer composition comprising

at least one polymer (A) having a weight average molecular weight (M_w) of less than 60000 g/mol;

at least one polyolefin (B) having a higher weight average molecular weight (M_w) than the polymer (A); and

a filler, wherein the polymer composition without the filler (C) has a density of 940 kg/m^3 or lower.

2.   (Previously presented) A polymer composition according to claim 1 wherein the at least one polymer (A) is

(1)   a polyolefin (1) having a weight average molecular weight (M_w) of 10000 to less than 60000 g/mol, or

(2)   a wax having weight average molecular weight (M_w) of less than 10000 g/mol.

3.   (Previously presented) A polymer composition according to claim 1 wherein the at least one polymer (A) is

(1)   a polyolefin (1) having a weight average molecular weight (M_w) of 10000 to less than 60000 g/mol, or

(2)   a wax having weight average molecular weight (Mw) of less than 10000 g/mol, and wherein

the polyolefin (1) is a low density polyethylene (LDPE), a linear low density polyethylene (LLDPE) or a linear medium density polyethylene (LMDPE).

4.   (Previously presented) A polymer composition according to claim 1 wherein the at least one polymer (A) is

(1)   a polyolefin (1) having a weight average molecular weight (M_w) of 10000 to less than 60000 g/mol, or

(2)   a wax (2) having weight average molecular weight (M_w) of less than 10000 g/mol, and wherein

the wax is selected from one or more of

(2a) a polypropylene wax having weight average molecular weight (M_w) of less than 10000 g/mol or a polyethylene wax having weight average molecular weight (M_w) of less than 10000 g/mol, or

(2b) an alkyl ketene dimer wax having weight average molecular weight (M_w) of less than 10000 g/mol.

5.   (Previously presented) A polymer composition according claim 1 wherein the composition comprises

(1)   a polyolefin (1) having a weight average molecular weight (M_w) of 10000 to less than 60000 g/mol as a first polymer (A) and

(2)   a wax having weight average molecular weight (M_w) of less than 10000 g/mol as a second polymer (A).

6.   (Previously presented) A polymer composition according to claim 1 wherein the polymer (A) has a density of lower than 945 kg/m^3.

7.   (Previously presented) A polymer composition according to claim 1 wherein the multimodal polymer composition is at least a bimodal polymer composition.

8.   (Previously presented) A polymer composition according to claim 1 wherein the polyolefin (B) has a weight average molecular weight (M_w) of higher than 80000 g/mol.

9.   (Previously presented) A polymer composition according to claim 1 wherein the polyolefin (B) is a polyethylene.

10.   (Previously presented) A polymer composition according to claim 1 wherein the polyolefin (B) is a low density polyethylene (LDPE), a linear low density polyethylene (LLDPE) or a linear medium density polyethylene (LMDPE).

11.   (Previously presented) A polymer composition according to claim 1 wherein the total polymer composition comprises 1 to 50 wt% of the polymer (A), 40 to 90 wt% of the polyolefin (B) and 1 to 50 wt% of filler (C).

12.   (Previously presented) A polymer composition according to claim 1 wherein the polymer composition without the filler (C) has melt flow rate MFR_2, according to ISO 1133, at 190 °C, of 5 to 20 g/10 min.

13.   (Previously presented) A polymer composition according to claim 1 wherein the polymer composition without the filler (C) has melt flow rate MFR_5, according to ISO 1133, at 190 °C, of 20 to 40 g/10 min.

14.   (Previously presented) A polymer composition according to claim 1 wherein the polymer composition without the filler (C) has melt flow ratio MFR_5/MFR_2 of 2.5 to 4.5.

15.   (Previously presented) (Previously presented) A polymer composition according to claim 1 wherein the polymer composition without the filler (C) has a ratio of the weight average molecular weight (M_w) to the number average molecular weight (M_n) of from 8 to 25.

16.   (Previously presented) A polymer composition according to claim 1 wherein 95 wt% of the filler (C) has a particle size of less than 10 μm.

17.   (Previously presented) A polymer composition according to claim 1 wherein the filler (C) is talc.

18.   (Previously presented) A polymer composition according to claim 1 wherein the polymer composition further comprises antioxidants(s) and/or process stabilizers in an amount of less than 2000 ppm in the total composition.

19.   (Previously presented) A polymer composition according to claim 1 wherein the polymer composition is a linear low density polyethylene (LLDPE) or a linear medium density polyethylene (LMDPE), and wherein the polymer (A) and polyolefin (B) are produced in a multi-stage polymerization process.

20.   (Previously presented) A polymer composition according to claim 1 wherein the polymer composition is a linear low density polyethylene (LLDPE) or a linear medium density polyethylene (LMDPE), wherein the polymer (A) and the

polyolefin (B) are produced in a multi-stage polymerization process, and wherein the amount of comonomer units in the linear low density polyethylene (LLDPE) or the linear medium density polyethylene (LMDPE) is 0.1 to 1.0 mol %.

21. (Previously presented) A polymer composition according to claim 1 wherein the polymer composition is a linear low density polyethylene (LLDPE) or a linear medium density polyethylene (LMDPE), wherein the polymer (A) and the polyolefin (B) are produced in a multi-stage polymerization process, wherein each of the polymer (A) and the polyolefin (B) is a linear low density polyethylene (LLDPE) or a linear medium density polyethylene (LMDPE), and wherein the comonomer units are selected from the group consisting of C_3 α-olefin, C_4 α-olefin, C_5 α-olefin, C_6 α-olefin, C_7 α-olefin, C_8 α-olefin, C_9 α-olefin, C_{10} α-olefin, C_{11} α-olefin, C_{12} α-olefin, C_{13} α-olefin, C_{14} α-olefin, C_{15} α-olefin, C_{16} α-olefin, C_{17} α-olefin, C_{18} α-olefin, C_{19} α-olefin and C_{20} α-olefin.

22. (Previously presented) A polymer composition according to claim 1 wherein the polymer (A) is a wax selected from one or more of

(1) a polypropylene wax having weight average molecular weight (M_w) of less than 10000 g/mol or

(2) a polyethylene wax having weight average molecular weight (M_w) of less than 10000 g/mol, or

(3) an alkyl ketene dimer wax having weight average molecular weight (M_w) of less than 10000 g/mol, and wherein the polyolefin (B) is a linear low density polyethylene (LLDPE) or low density polyethylene (LDPE).

23. (Previously presented) A polymer composition according to claim 1 wherein the polymer (A) is a wax selected from one or more of

(1) a polypropylene wax having weight average molecular weight (M_w) of less than 10000 g/mol or

(2) a polyethylene wax having weight average molecular weight (M_w) of less than 10000 g/mol, or

(3) an alkyl ketene dimer wax having weight average molecular weight (M_w) of less than 10000 g/mol, and

the polyolefin (B) is a linear low density polyethylene (LLDPE) or low density polyethylene (LDPE), and wherein the polymer composition further comprises a polyolefin (1) as a second polymer (A), wherein the polyolefin (1) is a linear low density polyethylene (LLDPE).

24.   (Previously presented) A polymer composition according to claim 1 wherein the polymer composition is a linear low density polyethylene (LLDPE), wherein polymer (A) and polyolefin (B) are produced in a multi-stage polymerization process, wherein the amount of comonomer units in a linear low density polyethylene (LLDPE) is 0.1 to 1.0 mol %, and the polyolefin (1) of polymer A is a linear low density polyethylene (LLDPE) and is the lower molecular weight fraction of LLDPE, and the polyolefin (B) is a linear low density polyethylene (LLDPE) and is the higher molecular weight fraction of the LLDPE.

25.   (Previously presented) A polymer composition according to claim 1 wherein the polymer composition is a linear low density polyethylene (LLDPE), wherein the polymer (A) and the polyolefin (B) are produced in a multi-stage polymerization process, wherein the amount of comonomer units in a linear low density polyethylene (LLDPE) is 0.1 to 1.0 mol %, wherein polyolefin (1) of polymer (A) is a linear low density polyethylene (LLDPE) and is the lower molecular weight fraction of LLDPE, and the polyolefin (B) is a linear low density polyethylene (LLDPE) and is the higher molecular weight fraction of the LLDPE, and wherein the polymer (A) and polyolefin (B) are a mechanical blend.

26.   (Previously presented) A multi-layer material comprising

a substrate as a first layer (I)

a multimodal polymer composition according to claim 1 as at least a second layer (II).

27.   (Previously presented) A multi-layer material according to claim 26 wherein the substrate is selected from the group consisting of paper, paperboard, aluminium film and plastic film.

28.   (Previously presented) A multi-layer material according to claim 26 wherein the multi-layer material further comprises a third layer (III), which comprises a low density polyethylene (LDPE).

29.   (Previously presented) A multi-layer material according to claim 26 wherein the low density polyethylene (LDPE) layer (III) has a melt flow rate MFR_2, according to ISO 1133, at 190°C, of at least 5 g/10 min.

30.   (Previously presented) A film comprising a multimodal polymer composition according to claim 1.

31.   (Previously presented) A process for producing the composition according to claim 1 comprising the steps of

(1)   producing the polymer (A) and the polyolefin (B) in a multi-stage process comprising a loop reactor and a gas phase reactor, wherein the polymer (A) is generated in at least one loop reactor and the polyolefin (B) is generated in a gas phase reactor; and

(2) blending and compounding the filler (C) and the composition comprising the polymer (A) and the polyolefin (B).

32.   (Previously presented) A process for producing the composition according to claim 31 comprising the steps of

(1) producing the composition comprising the polymer (A) and the polyolefin (B) using a catalyst, wherein the catalyst is a high activity procatalyst comprising a particulate inorganic support, and a chlorine compound deposited on the support,

(2) contacting the inorganic support with an alkyl metal chloride which is soluble in non-polar hydrocarbon solvents, and has the formula $R_nMECL_{3-n})_m$ wherein R is a C_1-C_{20} alkyl group, Me is a metal of group III(13) of the periodic table, n=1 or 2 and m=1 or 2, to give a first reaction product,

(3) contacting the first reaction product with a compound containing hydrocarbyl and hydrocarbyl oxide linked to magnesium which is soluble in non-polar hydrocarbon solvents, to give a second reaction product, and

(4) contacting the second reaction product is contacted with a titanium compound which contains chlorine, having the formula $Cl_xTi(OR^{IV})_{4-x}$ wherein R^{IV} is a C_2-C_{20} hydrocarbyl group and x is 3 or 4, to give the procatalyst, and wherein the titanium compound which contains chlorine may be the same or different than the chlorine compound used in step 1.

33.   (Previously presented) A process for producing a multi-layer material according to claim 26 wherein the multimodal polymer composition comprises

at least one polymer (A) having a weight average molecular weight (M_w) of less than 60000 g/mol;

at least one polyolefin (B) having a higher weight average molecular weight (M_w) than polymer (A); and

a filler (C),

and wherein the polymer composition without filler (C) has a density of 940 kg/m^3 or lower is applied on the substrate by a film coating line comprising an unwind, a wind, a chill roll and a coating die.

34.   (Previously presented) A method for extrusion coating comprising applying to a material to be coated the multimodal polymer composition according claim.

35.   (Currently amended) The method according to claim 34 wherein ~~the~~ the material to be coated is a multi-layer material comprising

a substrate as a first layer (I)

the multimodal polymer composition as at least a second layer (II).

36.   (Previously presented) A method comprising preparing a film from the multimodal polymer composition according to claim 1.

37.   (Previously presented) The method of claim 25, wherein the mechanical blend is an in-situ blend produced in a multi-stage polymerization process.

38.   (Previously presented) The method of claim 36, wherein the film is a cast film.

39.   (Previously presented) A polymer composition according to claim 1 wherein the composition comprises a polyolefin (1) having a weight average molecular weight (M_w) of 10000 to less than 60000 g/mol as the polymer (A) and a wax (2) having weight average molecular weight (M_w) of less than 10000 g/mol as a second polymer (A), wherein the polyolefin (1) is a low density polyethylene (LDPE), a linear low density polyethylene (LLDPE), or a linear medium density polyethylene (LMDPE).

40.   (Previously presented) A polymer composition according to claim 1 wherein the composition comprises a polyolefin (1) having a weight average molecular weight (M_w) of 10000 to less than 60000 g/mol as the polymer (A) and a wax (2) having weight average molecular weight (M_w) of less than 10000 g/mol as a second polymer (A), wherein the wax (2) is selected from one or more of

(2a) a polypropylene wax having weight average molecular weight (M_w) of less than 10000 g/mol or a polyethylene wax having weight average molecular weight (M_w) of less than 10000 g/mol, or

(2b) an alkyl ketene dimer wax having weight average molecular weight (M_w) of less than 10000 g/mol.

41.   (Previously presented) A polymer composition according to claim 1 wherein the polymer composition is a linear low density polyethylene (LLDPE) wherein the polymer (A) and the polyolefin (B) are produced in a multi-stage polymerization process, the comonomer units are selected from the group consisting of C_3 α-olefin, C_4 α-olefin, C_5 α-olefin, C_6 α-olefin, C_7 α-olefin, C_8 α-olefin, C_9 α-olefin, C_{10} α-olefin, C_{11} α-olefin, C_{12} α-olefin, C_{13} α-olefin, C_{14} α-olefin, C_{15} α-olefin, C_{16} α-olefin, C_{17} α-olefin, C_{18} α-olefin, C_{19} α-olefin and C_{20} α-olefin, and the polyolefin (1) of the polymer (A) is a linear low density polyethylene (LLDPE) and is the lower molecular weight fraction of LLDPE, and the polyolefin (B) is a linear low density polyethylene (LLDPE) and is the higher molecular weight fraction of the LLDPE.

42.   (Previously presented) A polymer composition according to claim 1 wherein the polymer composition is a linear low density polyethylene (LLDPE), wherein the

polymer (A) and the polyolefin (B) are produced in a multi-stage polymerization process, the comonomer units are selected from the group consisting of C_3 α-olefin, C_4 α-olefin, C_5 α-olefin, C_6 α-olefin, C_7 α-olefin, C_8 α-olefin, C_9 α-olefin, C_{10} α-olefin, C_{11} α-olefin, C_{12} α-olefin, C_{13} α-olefin, C_{14} α-olefin, C_{15} α-olefin, C_{16} α-olefin, C_{17} α-olefin, C_{18} α-olefin, C_{19} α-olefin and C_{20} α-olefin, and the polyolefin (1) of the polymer (A) is a linear low density polyethylene (LLDPE) and is the lower molecular weight fraction of LLDPE, and the polyolefin (B) is a linear low density polyethylene (LLDPE) and is the higher molecular weight fraction of the LLDPE, and wherein the polymer (A) and the polyolefin (B) are a mechanical blend.

43. (Previously presented) The polymer composition of claim 42, wherein the mechanical blend is an in-situ blend produced in a multi-stage polymerization process.